I'm not robot

Safeline metal detector password

What is password theft. Security safe code. Safeline signature metal detector manual.

Reference Information * Reference Number: 4618-007 * Standard Series Metal Detectors Instruction Manual * Firmware Version: 2.01 to 2.C * Copyright: Safeline Limited, 1990, 1997, 1998 **Important Notices** * No part of this document may be reproduced or translated without prior written consent from Safeline Limited. * Neither Safeline nor its Agents will be liable for incidental or consequential damage in connection with the use of this document. * Safeline reserves the right to change the contents or form of this manual at any time without prior notice. **Amendments** * Safeline updates manuals to include new features, correct errors, and incorporate customer requests. * An Amendment Record is provided for customers and suppliers to record any changes made to this document. **Warnings and Cautions** * Warning: Operating procedures or practices that could result in personal injury or death are identified with an exclamation mark (!). * Caution: Operating procedures or practices that could result in damage, destruction, or harm are also identified with an exclamation mark (!). **Handling Instructions** * The detector does not contain any exposed noxious or dangerous substances. * When transporting and handling the detector, lifting equipment must be used correctly to avoid damage. **Safety Instructions** * Most companies have a code of practice for their employees to ensure safety in the working environment. * Operators, maintenance engineers, and supervisors must be aware of potential hazards when introducing new equipment. * The following guidelines must be followed by anyone concerned with operating, installing, or handling the detector: Manual for Safeline Detector Preliminary Pages: The manual aims to provide guidelines and warnings for handling and operating the Safeline detector. It includes amendments, cautions, and a list of illustrations. Cautionary Points: - Avoid damaging the aperture by ensuring products do not touch or impact it. - When lifting or transporting the detector, never pass equipment through its aperture. Manual Contents: The manual covers the features available with firmware versions 2.01 to 2.49. It includes specifications for the standard series detectors, such as product speed, selectable high and low speeds, and frequency of operation. Technical Specifications: - The Safeline detector uses a high-frequency low-power electromagnetic coil system. - The detector operates at frequencies between 10 kHz and 500 kHz, with staggered frequency versions available. - Communication is possible through two ports (COM1 and COM2) accessible from the Power/Signal Connection PCB within the Power Unit Enclosure. Note: The information in this manual is subject to change without notice. Any errors found should be reported to Safeline for correction. Safeline metal detectors use a low-power, high-frequency magnetic field to detect metal particles. This is similar to how a hi-fi system's volume control affects all sounds and the bass control specifically targets low frequencies. The detector's phase discrimination circuit is very selective, like the bass control. Signals from the coil can be represented as shown in Fig 2. Installation of Safeline detectors requires care to avoid performance issues due to magnetic field effects on surrounding metalwork. Users should study installation advice provided to ensure proper setup and prevent severe impairment of detector performance. Magnetic loops in the detector's support framework can significantly affect its overall performance, making it more sensitive to vibration or poor. Proper connection and rating of circuit breakers, as shown in Fig 6B for TN power distribution systems only, are crucial for optimal operation. More detailed guidelines regarding metal detection conveyor design can be found in an available information booklet. Key components include the power supply module with fuse F1 (3.15A), the reject confirmation unit circuit board, and specific ratings for recommended power leads (24 x 0.2 mm, current rating of 6 AMP) and a double-pole circuit breaker or fuse (4 AMP or 5 AMP anti-surge rated). Supply Unit Page 9 Figure 7 Roller Shaft Insulation (one end only) Figure 8 Bearing Block Insulation Page 9BTHIS PAGE IS LEFT BLANK INTENTIONALLY Page 10THE CONTROL PANEL Introduction on the LCD display but not altered. The metal detector control panel is the interface where users can observe and control the metal detectors' performance. All operating characteristics can be programmed through the control panel. A Liquid Crystal Display (LCD) shows the information contained in the metal detectors' computer, with this display and by using the touch keys, the metal detectors' performance is controlled. OPERATING AND ACCESS MODES THE DISPLAY AND TOUCH KEY FUNCTIONS Running Mode Liquid Crystal Display This represents the normal running display of the metal detector. In this mode, information may be observed but the display values cannot be changed. Used to display the information in the metal detector's computer. Bar Graph Display Displays the level/amplitude of signals generated in the detector head. If green the signal is below the level required to trigger the metal detector. THE PAGE DISPLAY SYSTEM OPERATING AND ACCESS MODES - Continued There is a requirement to display more information than the LCD can display at any one time. To expand the display capabilities, a page display menu system is used. When there is more than one page of information to be displayed, an 'etc' prompt will appear on the display. Pressing the appropriate 'soft key' adjacent to 'etc' will cause the display to move to the next page or scroll forward. ENTERING THE ACCESS CODES USING THE TOUCH KEYS Cursor Move Key All Safeline metal detectors are shipped from the factory with the following access codes. Code 0001 = Operator Access This key is used to control the movement of the cursor bar when changing the setting of a digital value. A small cursor bar will appear under the active digit on the LCD display when a parameter is available for adjustment. CHANGING DIGITAL VALUES PROGRAMMABLE SETTINGS Various settings in the programme are stored as digital values, eg product number, sensitivity, phase etc. Digital values can only be adjusted if a pointer > is visible on the LCD display adjacent to the parameter to be adjusted and pointing toward the appropriate soft key. General Twenty one presettable programmes can be stored in the computers memory. Each programme is identified by a product number. PROGRAMMABLE SETTING - Inverse Detection (Inverse Detect Yes/No) This feature allows the action of the reject timer to be reversed, such that product containing no metal contamination is rejected whilst metal contaminated product is not rejected. This feature is often used To ensure a product contains a metallic premium, it must be configured to utilize a gated timer. When setting up the detector, various operating characteristics can be altered or configured according to specific application requirements. The engineer should perform this configuration process when initially installing the detector. The detector speed can be adjusted between Hi and Lo to accommodate different product throughput speeds. For most conveyor applications, it's typically set to Lo, while for free fall applications, it's usually set to Hi. Additionally, the SET TIME feature allows the setting of HOUR and MINUTE in the 24-hour format. The PRINTER HANDSHAKE mode controls the handshaking protocol between the module and Local Printer Unit (LPU), with options for software or hardware handshake. Reject timers are also available, offering various timer types and settings that can be programmed according to specific applications. For instance, the tm1 reject timer is suitable for instantaneous reject action with zero delay time, while the tm2[G] timer in non-gated mode provides delayed reject operation. When setting up the timer, it's essential to follow certain rules. The minimum value should be set as the operate time of the reject device, and tests using larger metal samples can help ensure accurate settings. For loose products or individual items where precise reject operation is not crucial, the tm2[G] photogated reject timer offers precise operation. Photogating ensures that rejected products are independent of metal contamination within them, allowing for precise reject operations. The sync delay is critical, ensuring packs break beams before reaching reject devices. Sensors must not interfere with the metal detector's operation by infringing on metal-free zone limitations. At speeds above 61m/min (200ft/min), sensors should maintain a minimum distance of 0.5m (1.5ft) from reject devices. To set these parameters, place a non-skewing pack or loose product under the detector and adjust reject time until cleanly rejected. Ensure photo beams are clear, press 'Window Time', and follow display instructions. The tm3[G] timer offers variable speed control with three functions controlled by a speed sensor on the conveyor. For accurate reject actions at fixed speeds, set up using the following procedure: 1. Prepare a sample pack containing a small metal contaminant positioned at the rear/trailing edge. 2. Enter the Engineer's access code. 3. Place the smallest metal test piece on the belt for loose products or at the rear/trailing edge for packaged products. 4. Press ENTER once after entering the reject shift and allow it to pass through the detector without skewing or slippage. Once a satisfactory setting is achieved, press ENTER again. The Reject Time should then be adjusted by pressing 'Reject Time'. Ensure that sensors do not interfere with the metal detector's operation and maintain the necessary distance from reject devices at high speeds. PROGRAMING THE DETECTOR GENERAL: The user should have already installed and configured the Safeline detector, being familiar with its basic operation as described earlier. The detector can store settings for 21 product numbers, each representing a set of sensitivity, phase, timer type, and inverse detection settings. PRODUCT EFFECT APPLICATIONS: To minimize the product effect signal, adjust the phase discriminator manually until a null point is reached. This process involves testing the detection sensitivity with metal samples, including wet/moist products like meat, cheese, and soups. The goal is to achieve a maximum signal of 2-3 green bars on the bar graph display. PERFORMANCE VALIDATION ROUTINE: To comply with ISO 9000 and BS5750 standards, the performance validation routine (PVR) helps users test and operate their metal detector system according to specified quality assurance (QA) standards. Users can set up test sample materials and sizes for ferrous, non-ferrous, or stainless steel products. GENERAL: The PVR provides three independent settings for each of the 21 product numbers. Additionally, users can set the time to disable timed shift reports, configure alarm settings if the system becomes overdue, and select options for operating the system fault relay when a performance check is overdue. Settings printout this contains all engineer and qa settings 1) data being transmitted by metal detector can be printed on paper using local printer unit or collected by other types of equipment enter qa inspector access code press print soft key display reads print all settings print shift report 3) select print all settings appendix a rotary encoder used as speed sensor for tm3 g timer speed sensor requirements speed sensor electrical connections speed sensor may be purpose bought item known as rotary encoder or proximity photo electric sensor together with necessary hardware to produce pulse output from rotary movement refer to installation section a) b) connect sensor to terminals labelled speed sensor both proximity and photo electric devices are available in slot sensor type construction which can be mounted to sit astride disk if this technique is used disk should be slotted rather than drilled disc construction disk diameter and number of holes slots can be determined when required shift distance of speed sensor is known see following section if your maximum conveyor speed exceeds this limit then choose next point up where in our example the shift distance is 19 mm at this point distance d still lies within limits and we have improved maximum conveyor speed at expense of larger shift distance if your maximum conveyor speed still exceeds tabulated limit then choose next point up providing as in our example distance d still lies within limits appendix b hardware failure numbers variable error numbers circuit fault numbers and warning numbers general metal detector carries out various test functions to ensure it is operating correctly some of these tests are carried out during power-up and others are done on continuous basis any test which fails is displayed on lcd display as error number warning no s other fault messages during power-up firmware checks module memory and detector head memory for validity any errors are displayed as warning numbers balance fault contact supplier if warning 1 occurs it will be followed by question maintain module yes settings no this message on lcd prevents metal detector from operating and forces reject condition appendix c setting up and connecting a printer to the metal detector general information or data being transmitted by metal detector may be transferred directly to paper by using printer alternatively Data collection by intelligent equipment such as terminals or computers is possible. CONNECTION OF PRINTER TO DETECTOR NOTES: 1) Many printers don't need CTS, DSR, or DCD signals to be active. It's a good practice to connect these together as shown. 2) Printer pin numbers are for RS232 25-way D-type connectors; consult the printer manual for correct pin numbers on 9 way D-type connectors. 3) These are terminal numbers of COM1 connectors on the P/S Connection PCB within the Power Unit Enclosure. APPENDIX D Sample Printed Reports: - Metal Detector Current Settings: - Date: 01 Jan 1998 - Serial No: Machine ID Time Sens Prod Phase QA Settings Report Printout Shift Report Printout * SHIFT REPORT START * Line ID Printer Relay Rpt Settings Rpt ; YES Report Int Test Int Overdue Int Alarm Prod No Fe 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 - 1.2 1.5 0.0 0.0 0.0